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10/622,512	07/21/2003	Helena Wisniewski	029527-00002	3788

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EXAMINER	
CHAWAN, SHEELA C	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/622,512	WISNIEWSKI, HELENA	
	Examiner	Art Unit	
	Sheela C. Chawan	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-62* is/are pending in the application.

4a) Of the above claim(s) *41-55* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 12- 37, 39- 62* is/are rejected.

7)☐ Claim(s) *9-11 and 38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/26/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 4/26/04, the information disclosure statement is being considered by the examiner.

Election/Restrictions

2. Claims 41-55 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse filed June 11, 2007.

Applicant's elects Species I. This election is made without traverse Claims 1-40 and 56- 62 are readable on the elected Species and are acknowledge.

Drawings

3. The drawings are objected to because of the following informalities:

Figures 1- 9 are poor in quality (i.e. images, lines, characters, numbers letter are not uniformly thick and well defined, clean, durable and black).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1- 8, 12-28 and 59- 62, are rejected under 35 U.S.C. 102(e) as being anticipated by Kuperstein et al., (US. 6,128,398).

As to claim 1, Kuperstein discloses a method of providing access (abstract), comprising:

capturing an image of a subject (fig 1, element 20, and 22, column 4, lines 44-50);

performing a head finding process of said image (column 4, lines 48- 53);

performing an eye finding process of said image (column 4, lines 62- 67); and

normalizing said image (column 6, lines 4- 38).

As to claim 56 see the rejection of claim 1 above.

As to claim 57 see the rejection of claim 1 above.

As to claim 58 see the rejection of claim 1 above.

As to claim 2, Kuperstein discloses the method according to claim 1, wherein said subject is placed against a fixed background (column 6, lines 45- 58).

As to claim 3, Kuperstein discloses the method according to claim 2, further comprising:

sampling said fixed background to develop a statistical model of said background prior to capturing said image (column 6, lines 45- 58).

As to claim 4, Kuperstein discloses the method according to claim 3, further comprising:

performing a subtraction of said fixed background to obtain said image (column 6, lines 45- 58).

As to claim 5, Kuperstein discloses the method according to claim 1, further comprising:

receiving an input of personal information and access privileges of said subject after said image is captured (abstract, column 14, lines 28- 37).

As to claim 6, Kuperstein discloses the method according to claim 4, wherein said subtraction replaces pixels of said fixed background with zero, and non-zero pixels define said image (column 9, lines 35-55).

As to claim 7, Kuperstein discloses, the method according to claim 6, wherein said head finding process comprises:

tracing a contour of a head and shoulders of said image to determine where said head ends and said shoulders begin (column 4, lines 60- 67, column 5, lines 1- 10, column 6, lines 54- 58, column 7, lines 19- 24).

As to claim 8, Kuperstein discloses the method according to claim 7, wherein said head finding process further comprises:

placing said head in a standard position with eyes of said subject being disposed in specific pixel locations (fig 1, automated face locator locates the head position).

As to claims 12 and 59, Kuperstein discloses the method according to claim 1, further comprising:

performing an identification process of said image (column 13, lines 6- 28).

As to claim 13, Kuperstein discloses the method according to claim 12, wherein said identification process includes using a weighting function, v, which is applied to said image and which places a greater weighting on differences in eyes-cheek-nose-mouth regions of said image (column 7, lines 60- 67, column 8, lines 1- 7, column 9, lines 35-55).

As to claim 14, Kuperstein discloses the method according to claim 1, wherein a numerical template of said image is no more than 88 bytes (column 13, lines 29- 53).

As to claim 15, Kuperstein discloses the method according to claim 12, wherein at least one pose of said subject is stored as an image in said image capturing device (fig 1, element 20 is camera).

As to claim 16, Kuperstein discloses the method according to claim 15, wherein a number of poses of said subject is pre-selected (note, poses corresponds to head orientation and head postures, column 11, lines 13-22).

As to claims 17 and 60, Kuperstein discloses the method according to claim 15, further comprising:
performing an authentication process of said image (column 14, lines 28 - 37).

As to claim 18, Kuperstein discloses the method according to claim 17, wherein said identification process further comprises:

comparing a numerical representation of said image captured by said image capturing device to a numerical representation of said stored images (column 6, lines 4-38, 35- 54).

As to claim 19, Kuperstein discloses the method according to claim 18, wherein said authentication process further comprises:

determining whether a distance between said numerical representation of said captured image and each of said stored images is less than an authentication threshold (column 5, lines 35- 54, column 4, lines 20- 31, column 6, lines 4-38, 35- 54).

As to claims 20 and 61, Kuperstein discloses the method according to claim 19, further comprising:

notifying said subject as to whether an identity of said subject is authenticated (column 6, lines 4-38).

As to claims 21 and 62, Kuperstein discloses the method according to claim 20, further comprising:

storing said captured image in one of a database and a smart card (fig 1, 12, column 4, lines 20- 31).

As to claim 22, Kuperstein discloses the method according to claim 21, further comprising:

logging and storing all attempts at access in said database to form an audit trail.

As to claims 23 and 27, Kuperstein discloses the method according to claim 21, wherein said smart card is one of a contact-type and a contactless card (column 4, lines 20- 31).

As to claim 24, Kuperstein discloses the method according to claim 17, wherein said identification process further comprises:

comparing a numerical representation (note, predetermined portions of each face image corresponds to numerical representations of image) of said image captured by said image capturing device to a numerical representation of a stored image on a smart card (column 5, lines 35- 54, column 4, lines 20- 31, column 6, lines 4-38, 35- 54).

As to claim 25, Kuperstein discloses the method according to claim 24, wherein said smart card is embedded with a biomatrix of said subject (column 5, lines 42- 54).

As to claim 26, Kuperstein discloses the method according to claim 25, wherein said smart card includes access information on said subject (column 4, lines 19- 43, column 5, lines 35-54, column 13, lines 1-28, column 12, lines 66-67, column 14, lines 28- 37).

As to claim 28, Kuperstein discloses the method according to claim 17, wherein said identification process further comprises:

comparing a numerical representation of said image captured by said image capturing device to a numerical representation of a stored image on a database accessed over the internet (column 5, lines 35- 54, column 4, lines 20- 31, column 6, lines 4-38, 35- 54).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 29 - 34, are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kuperstein et al., (US. 6,128,398), as applied to the claims 1-8, 12- 28 and 59-62 above and further in view of Vacek et al., (US. 6,937,702 B1).

Regarding claim 29, Kuperstein discloses object recognition systems and more particularly to a neural network based system and method for verifying a match between two objects patterns. Kuperstein is silent about image capturing device is wireless, and said stored images are stored in said wireless image capturing device.

Vacek discloses Method, apparatus, and computer readable media for minimizing the risk of fraudulent access to call center resources. The system comprises of

wherein said image capturing device is wireless, and said stored images are stored in said wireless image capturing device (column 5, lines 59 – 65, column 6, lines 22 - 44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kuperstein to include wherein said image capturing device is wireless, and said stored images are stored in said wireless image capturing device. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kuperstein by the teaching of Vacek in order to minimize the risk of an imposter fraudulently accessing call center resources to misappropriate (as suggested by Vacek at column 2, lines 36- 38).

As to claim 30, Vacek discloses the method according to claim 1, further comprising, prior to said capturing step:

requesting an image from said subject when on-line access is requested (column 5, lines 59-65).

As to claim 31, Vacek discloses the method according to claim 1, further comprising, prior to said capturing step:

requesting an image from said subject when logon access is requested from said subject (column 5, lines 59-65).

As to claim 32, Vacek discloses the method according to claim 31, wherein said logon access is requested when a computer is directed by said subject to leave screen saver mode (fig 5).

As to claim 33, Vacek discloses the method according to claim 20, wherein when said identity of said subject is not authenticated, access is denied (column 7, lines 11-62).

As to claim 34, discloses the method according to claim 1, wherein access is time-limited (column 4, lines 24- 28).

6. Claims 35 – 37 and 39, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuperstein et al., (US. 6,128,398), in view of Vacek et al., (US. 6,937,702 B1), as applied to the claims 1-8 and 12-34 above and further in view of Kumakura (Listed in IDS, filed 4/26/04, US. 5,786,765).

Regarding claim 35, Kuperstein discloses object recognition systems and more particularly to a neural network based system and method for verifying a match

between two objects patterns. Kuperstein is silent about monitoring at least one of eye movement using said eye finding process, and head movement using said head finding process, to detect drowsiness.

Kumakura discloses an apparatus for estimating the drowsiness level of a vehicle driver in accordance with the driver's blinking. The system comprises of:

monitoring at least one of eye movement using said eye finding process, and head movement using said head finding process, to detect drowsiness (column 1, lines 59- 63, column 1, 51-67, column 2, lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kuperstein to include monitoring at least one of eye movement using said eye finding process, and head movement using said head finding process, to detect drowsiness. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kuperstein by the teaching of Kumakura in order to capable of accurately estimating and discriminating the drowsiness level of a driver in accordance with a blink duration of a driver's eye after absorbing differences in the way of blinking between individuals, (as suggested by Kumakura at column 1, lines 52- 56).

As to claim 36, Kumakura discloses the method according to claim 35, wherein drowsiness is determined when said at least one of eye movement and head movement reaches a predetermined threshold value (column 1, lines 59- 63, column 1, 51-67, column 2, lines 1-10, column 3, lines 32-52, column 4, lines 4-30).

As to claim 37, Kumakura discloses the method according to claim 36, wherein when said predetermined threshold (fig 1, 20) value is reached, an alarm is triggered (fig 1 and fig 2, 50).

As to claim 39, Kumakura discloses the method according to claim 33, wherein said authentication and said denial of access are performed by voice prompt (fig 1, 4).

Claim 40, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuperstein et al., (US. 6,128,398), in view of Kookaburra (US. 5,786,765).

Regarding claim 40, Kuperstein discloses object recognition systems and more particularly to a neural network based system and method for verifying a match between two objects patterns. Kuperstein is silent about monitoring at least one of eye movement and head movement of the driver; and triggering an alarm when said at least one of eye movement and head movement reaches a predetermined threshold value.

Kumakura discloses an apparatus for estimating the drowsiness level of a vehicle driver in accordance with the driver's blinking. The system comprises of:

monitoring at least one of eye movement and head movement of the driver; and triggering an alarm when said at least one of eye movement and head movement reaches a predetermined threshold value (column 1, lines 59- 63, column 1, 51-67, column 2, lines 1-10, column 3, lines 32-52, column 4, lines 4-30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kuperstein to include monitoring at least one of eye movement and head movement of the driver; and triggering an alarm when said at least one of eye movement and head movement reaches a predetermined threshold value. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Kuperstein by the teaching of Kumakura in order to capable of accurately estimating and discriminating the drowsiness level of a driver in accordance with a blink duration of a driver's eye after absorbing differences in the way of blinking between individuals, (as suggested by Kumakura at column 1, lines 52- 56).

Allowable Subject Matter

7. Claims 9-11 and 38, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other prior art cited

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lobo et al., (US. 5,835,616) discloses face detection using templates.

Kang et al., (US.6,611,613 B1) discloses apparatus and method for detecting speaking person's eyes and face.

Puma (US.5,729,619) discloses operator identity, intoxication and drowsiness monitoring system and method.

Aboutalib et al., (US. 5,867,587) discloses impaired operator detection and warning system employing eyeblink analysis.

Bevan et al., (US. 6,661,345 B1) discloses alertness monitoring system.

Prokoski (US.7,027,621 B1) discloses method and apparatus for operator condition monitoring and assessment.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sheela Chawan
Patent Examiner
Group Art Unit 2624
July 22, 2007

SHEELA CHAWAN
PRIMARY EXAMINER